

CLAIMS

1. An antenna device for a portable communication equipment (1) having a housing (10), comprising:
at least a first antenna (110) arranged on a support element (111); and
antenna output means (114);
characterized in that
the geometric shape of the support element (111) is conformed to the geometric shape of a protruding member (11, 20, 30) of said housing.
2. The antenna device according to claim 1, wherein the geometric shape of the support element (111) is conformed to the geometric shape of an inner surface of the protruding member (11, 20, 30).
3. The antenna device according to claim 1 or 2, further comprising at least a second antenna (120a-b) arranged on said support element (111).
4. The antenna device according to any of the preceding claims, wherein the first or the second antenna (110, 120a-b) are formed as printed traces of conductive material on said support element (111).
5. The antenna device according to any of the preceding claims, wherein the support element (111) comprises a flexible dielectric film.
6. The antenna device according to any of the claims 1-4, wherein the support element (111) is an inner surface of said protruding member (11, 20, 30).

7. The antenna device according to any of the proceeding claims, wherein the first antenna (110) is a multiple branch antenna.

5 8. The antenna device according to claim 3, wherein the second antenna is a diversity antenna having first and second monopole antenna branches (120a-b) provided with a mutual distance of at least a quarter of a wave length of the signal for which the second antenna is adapted.

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9. The antenna device according to any of the claims 3 or 8, wherein the second antenna (120a-b) is adapted for communication in a W-LAN frequency band.

15 10. The antenna device according to any of the proceeding claims, wherein the first antenna (110) is adapted for communication in a GSM frequency band, a DCS frequency band, a PCS frequency band, and/or a UMTS frequency band.

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11. The antenna device according to any of the proceeding claims, wherein said first antenna is tuned to a predetermined first frequency and the second antenna is tuned to a predetermined second frequency.

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12. Use of an antenna device according to any of the claims 1-11 in a portable communication equipment (1).

13. Use of an antenna device according to claim 12,
30 wherein the portable communication equipment is a computer card device (1) for providing wireless data communication.